

What Is Claimed Is:

1. A router configured for sending and receiving data packets on an InfiniBand™ network, the router being configured to receive an Ethernet data packet having a VLAN tag indicative of layer 2 priority data of the Ethernet packet, the router comprising:

a mapping table having multiple entries, each entry specifying a VLAN tag and a corresponding service level, and

a controller configured for parsing the VLAN tag and determining the service level for the VLAN tag, the controller outputting the Ethernet packet on the InfiniBand™ network within an InfiniBand™ packet according to the determined service level.

2. The router of claim 1, further including a host channel adapter configured for generating the InfiniBand™ packet based on a request from the controller.

3. The router of claim 2, wherein the host channel adapter includes a service level to virtual lane mapping table configured for assigning the InfiniBand™ packet to a prescribed virtual lane based on the determined service level specified in the request.

4. A method of outputting an Ethernet packet, received by a router, onto an InfiniBand™ network, the method comprising:

receiving, by the router, an Ethernet data packet having a VLAN tag;

parsing the VLAN tag and mapping the VLAN tag to a determined service level based on the parsed VLAN tag; and

outputting the Ethernet packet on the InfiniBand™ network within an InfiniBand™ packet according to the determined service level.

5. The method of claim 4, further including, prior to outputting step, the step of mapping the service level to a virtual lane and establishing an InfiniBand™ packet header including a virtual lane field that contains priority data relating to the priority data of the Ethernet packet.

6. The method of claim 4, wherein, prior to the parsing step, the method includes populating within the router a VLAN tag to service level mapping table with VLAN tag values and corresponding service level numbers.

7. A router configured for sending and receiving data packets on an InfiniBand™ network, the router being configured to receive an Ethernet data packet having a VLAN tag indicative of a layer 2 priority data of the Ethernet packet, the router comprising:

means for a mapping a VLAN tag to a corresponding service level, and

means for parsing the VLAN tag and determining the service level for the VLAN tag, and for outputting the Ethernet packet on the InfiniBand™ network within an InfiniBand™ packet according to the determined service level.

8. The router of claim 7, wherein the means for mapping is a mapping table having multiple entries, each entry specifying a VLAN tag value and a corresponding service level.

9. The router of claim 7, wherein the means for parsing is a controller.

10. The router of claim 9, further including a host channel adapter configured for generating the InfiniBand™ packet based on a request from the controller.

11. The router of claim 10, wherein the host channel adapter includes a service level to virtual lane mapping table configured for assigning the InfiniBand™ packet to a prescribed virtual lane based on the determined service level specified in the request.